for Clients



THE GOLDEN AGE

According to Roger Green, Vice President for Chemical Consulting (Europe, CIS and Africa) at IHS Markit, the petrochemical industry is in its golden age now.



ROGER GREEN

Vice President with IHS Markit, based in London. Roger leads the Europe & Africa Roger has delivered an extensive range of consulting engagements during a career of more than 25 years in the chemicals industry. He leads a team that works with clients on investment-related projects, mergers and acquisitions, market studies, project financing, and technology assessments.

We live in interesting times. Technology continues to develop rapidly and to generate unprecedented changes in our daily lives, with petrochemistry involved in every part of our daily lives fr om our morning shower to an evening relaxing with entertainment provided on an electronic tablet.

Transportation Shapes our Lives

Over the last century we have moved fr om horse-drawn transportation to highly sophisticated motor vehicles. Developments in personal mobility continue and the pace of change is higher than ever.

To look at just one area in which technology is driving change in our lives, we see the automotive industry is in a state of flux and about to undergo changes which are just as radical as the shift from the horse to internal combustion engines. The modern automobile is faster, safer and more comfortable than at any time in the past and now comes with a range of drivetrain options, from traditional gasoline and diesel to hybrid and fully electric alternatives. Even the traditionally fuelled options offer unprecedented economy, whereas the alternate forms of motive power offer potentially hydrocarbon free motoring.

Let us look how these automotive changes impact the energy and petrochemical industries, which are inextricably linked. In the quest for more efficient automobiles, light weighting has become an imperative, particularly where batteries may increase the weight of hybrid and fully electric vehicles.

Sophisticated polymers ranging from polypropylene through to engineering resins and advanced composites are at the core of lighter vehicles and they are all delivered by the petrochemical industry. As cars become quieter, the demands placed upon tyres increase, in terms of delivering low road noise, low rolling resistance and excellent traction, without sacrificing longevity. Increasingly sophisticated grades of synthetic rubbers are required for modern tyres to keep pace with the demands of the automotive industry. Once again, it is the petrochemical industry and companies such as SIBUR that must deliver on the challenges set by our high technology customers.



Charging an electric car in the Netherlands.

MODERN POLYMERS – FROM POLYPROPYLENE TO ENGINEERING RESINS AND COMPOSITES – ARE USED FOR THE PRODUCTION OF AN INCREASINGLY LARGE PERCENTAGE OF AUTOMOTIVE PARTS.

Changing Fuels Means Changing Feedstocks

As vehicles become more efficient and some shift to an electric drive, the demand for motor fuels will, eventually, start to decline. In low growth regions, such as the United States and Western Europe, gasoline demand is already flat and projected to decline. These changes are of considerable concern to the refining sector, which could be left in a situation of overcapacity, indeed Western Europe has already seen a wave of refinery closures. Petrochemical feedstocks may offer a welcome solution as petrochemical demand growth remains robust. Refineries that increase the production and sale of, for example, propylene and naphtha for petrochemical uses at the expense of reduced transportation fuel output, may help the fuels market to stay in balance. Figure "Fuels and Petrochemical feedstock growth, history and forecast" shows IHS Markit's views of future growth of naphtha and transportation fuels, highlighting the future importance of petrochemical uses of naphtha.

So for petrochemistry, we see positive demand growth for all of the principal products of the industry at rates in excess of wider economic growth. Feedstock, ranging from naphtha to attractively priced gas supplies, whether these are in Siberia or the United States, provide an abundant platform for competitive production.



As the Wheels Turn, So Does Profitability

THE PETROCHEMICAL INDUSTRY HAS ALWAYS DEVELOPED IN CYCLES, WITH HIGH-PROFIT PERIODS FOLLOWED BY THE PERIODS OF HEAVY INVESTMENT INTO NEW CAPACITIES.

Historically, the petrochemical business has been cyclic, as periods of high profitability have led to waves of investment in new capacity. This new capacity has led to oversupply which in turn depresses profitability.

So, wh ere are we now in the petrochemical cycle?

Figure "Petrochemical Industry Earnings by Year", below shows the profitability of base chemicals and plastics from 1985 to the current day. The cyclic nature of earnings is very clear, with the industry suffering huge downturns in profitability in 1991, 1998, 2001 and 2009.

These downturns were driven by global economic recessions in 1991 and 2001, whilst the Asian financial crisis accounted for the 1998 dip. In 2008 the global financial crisis caused the 2009 profits slump.

GLOBAL BASE CHEMICALS AND PLASTICS: WEIGHTED AVERAGE EARNINGS BEFORE INTEREST & TAXES, DOLLARS PER TON



Since 2010, the industry has enjoyed the longest period of sustained and stable profitability that most of us can remember throughout our careers. So how does the future look after this lengthy period of profitable performance?

What Does the Future Hold?

High profitability arises when demand is strong and yet supply is limited. Periods of rapid supply additions have typically progressed into periods of weak profitability unless demand growth has been similarly robust. The interesting characteristic of the current extended profitability cycle is that the 2014-2015 period saw the collapse of global oil prices. You can see in figure 2 that this change in cost base did not unduly impact the global profitability of the industry. The important effect of this change in landscape was to delay investment and reinvestment decisions. While uncertainly about future energy prices continued, investors generally adopted a wait-and-see attitude to major capital decisions, such as petrochemical investment.

Economic growth expands through this period of lower oil prices, in all but highly oil dependent economies, such as Russia. The combination of resilient demand side growth and weak supply side investments led to an increase in operating rates and sustained the period of strong profitability.

Today, we see a generally bullish picture of wider economic expansion across the major economies, and petrochemical reinvestment remains muted. Consequently, it is IHS Markit's view that the current unprecedented period of industry profitability is set to extend out to 2022, and beyond.

We should add a word of caution that previous periods of strong profitability have been halted by dramatic external events including recessions and financial crises which are, of their very nature, hard to predict. However, the current outlook for the petrochemical sector remains highly positive. We are fortunate to be engaged in the petrochemical industry during its golden age.